Sequence Listing

JC12 Rec'd PCT/PTC 3 0 SEP 2005

SEQUENCE LISTING

		٠,														
		Seikagaku Corporation														
<120	> (Catalyst for cleaving a sugar chain														
<130)> I	P04778600														
<150	> [JP 2003-097301														
<151	> 2	2003-03-31														
<150	> .	JP 2003-113965														
<151	> 2	2003-04-18														
<160	N 5	,														
<170			ntIn	vers	sion	3. 1										
												,				
<210 <211		l 1308														
<211)NA														
<213			sap	iens												
,																
<220	>															
<221		CDS														
<222		(1)	(130	08)												
<223	>															
<400	> 1	1							-							
atg		gcc	cac	ctg	ctt	ссс	atc	tgc	gcc	ctc	ttc	ctg	acc	tta	ctc	48
Met																
1				5					10					15		
gat	_	_														96
Asp	Met	Ala		Gly	Phe	Arg	Gly		Leu	Leu	Pro	Asn		Pro	Phe	
			20					25	.	4			30		~~ +	144
acc Thr																144
inr	inr	35	irp	ASII	итя	ASII	40	GIII	пр	Cys	Leu	45	VI R	1115	Gly	
gtg	gac		gat	gtc	agt	gtc		gat	gtg	gta	gcc		cca	ggg	cag	192
Val	-															
	50		-			55					60					
acc	ttc	cgc	ggc	cct	gac	atg	aca	att	ttc	tat	agc	tcc	cag	ctg	ggc	240
Thr	Phe	Arg	Gly	${\tt Pro}$	Asp	Met	Thr	Ile	Phe	Tyr	Ser	Ser	Gln	Leu	Gly	
65					70					75					80	
acc																288
Thr	Tyr	Pro	Tyr		Thr	Pro	Thr	Gly		Pro	Val	Phe	Gly		Leu	
				85					90					95		

_		_	_	_						_					336
Gln	Asn		Ser	Leu	lle	Ala		Leu	Ala	Arg	Thr		Gln	Asp	
	4		-+-	+	- 0+	+		++-	+		a t a		ata	o to	384
_	_	_													304
Leu	_	ита	116	FIO	nıa		ASP	rne	Set	GIY		ліа	Val	116	
taa		σca	tøø	CGC	cca		t.øø	gcc	ttc	aac		gac	acc	ลลฮ	432
		_													
_	010				135	8				140				_,_	
	tac	cgg	cag	cgc	tca	cgg	gca	ctg	gta	cag	gca	cag	cac	cct	480
Ile	Tyr	Arg	Gln	Arg	Ser	Arg	Ala	Leu	Val	Gln	Ala	Gln	His	Pro	
				150					155					160	
		_													528
Trp	Pro	Ala			Val	Glu	Ala		Ala	Gln	Asp	Gln		Gln	
															520
-															576
Ala	Ala	_	АТА	ırp	мет	Ala		ınr	Leu	GIN	Leu		Arg	мта	
cat	cct		aac	ctc	taa	aac		tat	aac	ttc	cct		tøc	tac	624
_		_													021
711 B	195	7.1. 6	01,	200		200		-,-	,	- 110	205		-,-	•	
tat	gac	ttt	cta	agc	ссс	aac	tac	acc	ggc	cag	tgc	cca	tca	ggc	672
Tyr	Asp	Phe	Leu	Ser	${\tt Pro}$	Asn	Tyr	Thr	Gly	Gln	Cys	${\tt Pro}$	Ser	Gly	
210					215					220					
_	_			_	_										720
Arg	Ala	Gln	Asn	-	Gln	Leu	Gly	Trp		Trp	Gly	GIn	Ser		
						4				_+_					768
															700
Leu	1 9 1	110		116	1 91	Met	110		Val	Leu	Olu	Oly		Oly	
tca	cag	atg		gtg	caa	cac	cgt		gcc	gag	gca	ttc		gtg	816
		260	•				265					270			
gtg	gct	gct	ggt	gac	ccc	aat	ctg	ccg	gtg	ctg	ccc	tat	gtc	cag	864
Val	Ala	Ala	Gly	Asp	Pro	Asn	Leu	Pro	Val	Leu	Pro	Tyr	Val	Gln	
	275					280					285				
															912
	Tyr	Asp	Thr	Thr		His	Phe	Leu	Pro		Asp	Glu	Leu	Glu	
											~~~	~+ ~	a+ a	a t a	960
															300
Set	Leu	ОТУ	GIU		лта	ліа	GIII	GIY		VIG	Oly	V & 1	Val		
ρtσ	age	t.øø	gaa		aca	ลฐล	acc	aaø		tca	tgt.	cag	gcc		1008
		P	325			0		330			•		335		
gag	tat	atg		act	aca	ctg	ggg		ttc	atc	ctg	aac	gtg	acc	1056
	ctg Leu tgg Trp 130 att Ile tgg Trp gct Ala cgt Arg tat Tyr 210 cArg ctc Leu tca Ser gtg Val ttc Phe 290 c Ser gtg Val	ctg gct Leu Ala 115 tgg gag Trp Glu 130 att tac Ile Tyr tgg cca Trp Pro gct gca Ala Ala cgt cct Arg Pro 195 tat gac Tyr Asp 210 cgt gcc Arg Ala ctc tat Leu Tyr tca cag Ser Gln gtg gct Val Ala 275 ttc tat Phe Tyr 290 agc ctg Ser Leu gtg agc	Gln Asn Ala 100 ctg gct gcc Leu Ala Ala 115 tgg gag gca Trp Glu Ala 130 att tac cgg Ile Tyr Arg tgg cca gct Trp Pro Ala gct gca cgg Ala Ala Arg 180 cgt cct cgc Arg Pro Arg 195 tat gac ttt Tyr Asp Phe 210 cgt gcc caa Arg Ala Gln ctc tat ccc Leu Tyr Pro tca cag atg Ser Gln Met 260 gtg gct gct Val Ala Ala 275 ttc tat gac Phe Tyr Asp 290 agc ctg ggg Ser Leu Gly gtg agc tgg Val Ser Trp	Gln Asn Ala Ser	Gln         Asn         Ala         Ser         Leu           100         ctg         gct         ata         cct           Leu         Ala         Ala         Ile         Pro           115         tgg         gag         gca         tgg         cgc           Trp         Glu         Ala         Trp         Arg         130         att         tac         cgc         cgc         Ile         Arg         Arg         Gln         Arg         Arg         Ile         Arg         Arg         Ile         Arg         Ile         Arg         Ile         Ile	Gln         Asn         Ala         Ser         Leu         Ile           ctg         gct         ata         cct         gct           Leu         Ala         Ale         Pro         Ala           115         Ty         Arg         Ccc         cca           Trp         Glu         Ala         Trp         Arg         Pro           130         Ty         Arg         Ccc         cca           Ite         Tyr         Arg         Gln         Arg         Ser           130         Tyr         Arg         Ccc         tca         Ite         Arg         Pro         Ite         It	Gln         Asn         Ala         Ser         Leu         Ile         Ala           ctg         gct         gcc         ata         cct         gct         cct           Leu         Ala         Ala         Ile         Pro         Ala         Pro           115          120         tgg         ggc         cca         cgc           tgg         gag         gca         tgg         cgc         cca         cgc           Trp         Glu         Ala         Trp         Arg         Pro         Arg           130          135         arg         arg         gcc         cgg         cgc         cgg         dra         grg         Arg         Arg         Ille         Trp         Arg         Arg         Ille         Trp         Arg         Ille         Trp         Arg         Ille         Ille         Ggg         Ggg         ctc         cgg         ggg         ggg	Gln         Asn         Ala         Ser         Leu         Ile         Ala         His           ctg         gct         gct         ata         cct         gct         cct         gac           Leu         Ala         Ala         Ile         Pro         Ala         Pro         Asp           115         Ile         Pro         Ala         Pro         Asp         1120         Image         Image         ccc         ccc         cgc         tgg         tgg         ccc         ccc         tgg         tgg         rpr         Arg         Trp         Arg         Pro         Arg         Pro         Arg         Pro         Arg         Ala         Image         ccc         cgc         cgc         ccc         arg         gca         gg         gg         ga         gg         gg         ga         gg         gg         ga         gg         ga         gg         ga         gg         gg         ga         gg         ga         gg         ga         gg         gg         ga         gg         ga         gg         ga         gg         ga         ga         ga         gg         gg         ga         gg <td< td=""><td>  Cln</td><td>GIN         Asn         Ala         Ser         Leu         Ile         Ala         His         Leu         Ala           ctg         gct         gcc         ata         cct         gct         cct         gac         ttc         tca           Leu         Ala         Ala         Ile         Pro         Ala         Pro         Asp         Phe         Ser           115         Ile         Pro         Ala         Pro         Asp         Phe         Ser           115         Ile         Pro         Arg         Ccg         ccg         ccg         cgc         ttc           Trp         Glu         Ala         Trp         Arg         Arg</td><td>  Clar</td><td>  Color</td><td>  Clin</td><td>  Signature</td><td>  Ctg gct gcc   gcc   gcc   gcc   gct   gct   gct   gcc   gc</td></td<>	Cln	GIN         Asn         Ala         Ser         Leu         Ile         Ala         His         Leu         Ala           ctg         gct         gcc         ata         cct         gct         cct         gac         ttc         tca           Leu         Ala         Ala         Ile         Pro         Ala         Pro         Asp         Phe         Ser           115         Ile         Pro         Ala         Pro         Asp         Phe         Ser           115         Ile         Pro         Arg         Ccg         ccg         ccg         cgc         ttc           Trp         Glu         Ala         Trp         Arg         Arg	Clar	Color	Clin	Signature	Ctg gct gcc   gcc   gcc   gcc   gct   gct   gct   gcc   gc

```
Lys' Glu Tyr Met Asp Thr Thr Leu Gly Pro Phe Ile Leu Asn Val Thr
                                 345
            340
agt ggg gcc ctt ctc tgc agt caa gcc ctg tgc tcc ggc cat ggc cgc
                                                                     1104
Ser Gly Ala Leu Leu Cys Ser Gln Ala Leu Cys Ser Gly His Gly Arg
                            360
                                                 365
tgt gtc cgc cgc acc agc cac ccc aaa gcc ctc ctc ctc aac cct
                                                                     1152
Cys Val Arg Arg Thr Ser His Pro Lys Ala Leu Leu Leu Leu Asn Pro
                        375
                                                                     1200
gcc agt ttc tcc atc cag ctc acg cct ggt ggt ggg ccc ctg agc ctg
Ala Ser Phe Ser Ile Gln Leu Thr Pro Gly Gly Gly Pro Leu Ser Leu
                                         395
                    390
                                                                     1248
cgg ggt gcc ctc tca ctt gaa gat cag gca cag atg gct gtg gag ttc
Arg Gly Ala Leu Ser Leu Glu Asp Gln Ala Gln Met Ala Val Glu Phe
                                     410
                                                                     1296
aaa tgt cga tgc tac cct ggc tgg cag gca ccg tgg tgt gag cgg aag
Lys Cys Arg Cys Tyr Pro Gly Trp Gln Ala Pro Trp Cys Glu Arg Lys
                                 425
                                                     430
                                                                     1308
agc atg tgg tga
Ser Met Trp
        435
<210>
       2
<211>
       435
<212>
       PRT
<213>
       Homo sapiens
<400>
Met Ala Ala His Leu Leu Pro Ile Cys Ala Leu Phe Leu Thr Leu Leu
Asp Met Ala Gln Gly Phe Arg Gly Pro Leu Leu Pro Asn Arg Pro Phe
Thr Thr Val Trp Asn Ala Asn Thr Gln Trp Cys Leu Glu Arg His Gly
Val Asp Val Asp Val Ser Val Phe Asp Val Val Ala Asn Pro Gly Gln
                        55
Thr Phe Arg Gly Pro Asp Met Thr Ile Phe Tyr Ser Ser Gln Leu Gly
                    70
Thr Tyr Pro Tyr Tyr Thr Pro Thr Gly Glu Pro Val Phe Gly Gly Leu
                85
                                     90
Pro Gln Asn Ala Ser Leu Ile Ala His Leu Ala Arg Thr Phe Gln Asp
                                 105
Ile Leu Ala Ala Ile Pro Ala Pro Asp Phe Ser Gly Leu Ala Val Ile
                            120
Asp Trp Glu Ala Trp Arg Pro Arg Trp Ala Phe Asn Trp Asp Thr Lys
                                             140
    130
                        135
```

Asp Ile Tyr Arg Gln Arg Ser Arg Ala Leu Val Gln Ala Gln His Pro 155 150 Asp Trp Pro Ala Pro Gln Val Glu Ala Val Ala Gln Asp Gln Phe Gln 165 Gly Ala Ala Arg Ala Trp Met Ala Gly Thr Leu Gln Leu Gly Arg Ala 185 Leu Arg Pro Arg Gly Leu Trp Gly Phe Tyr Gly Phe Pro Asp Cys Tyr 200 Asn Tyr Asp Phe Leu Ser Pro Asn Tyr Thr Gly Gln Cys Pro Ser Gly 215 Ile Arg Ala Gln Asn Asp Gln Leu Gly Trp Leu Trp Gly Gln Ser Arg 235 230 Ala Leu Tyr Pro Ser Ile Tyr Met Pro Ala Val Leu Glu Gly Thr Gly 250 Lys Ser Gln Met Tyr Val Gln His Arg Val Ala Glu Ala Phe Arg Val 265 260 Ala Val Ala Ala Gly Asp Pro Asn Leu Pro Val Leu Pro Tyr Val Gln 280 Ile Phe Tyr Asp Thr Thr Asn His Phe Leu Pro Leu Asp Glu Leu Glu 295 His Ser Leu Gly Glu Ser Ala Ala Gln Gly Ala Ala Gly Val Val Leu 315 Trp Val Ser Trp Glu Asn Thr Arg Thr Lys Glu Ser Cys Gln Ala Ile 325 330 Lys Glu Tyr Met Asp Thr Thr Leu Gly Pro Phe Ile Leu Asn Val Thr Ser Gly Ala Leu Leu Cys Ser Gln Ala Leu Cys Ser Gly His Gly Arg 360 Cys Val Arg Arg Thr Ser His Pro Lys Ala Leu Leu Leu Leu Asn Pro 375 Ala Ser Phe Ser Ile Gln Leu Thr Pro Gly Gly Pro Leu Ser Leu 390 395 Arg Gly Ala Leu Ser Leu Glu Asp Gln Ala Gln Met Ala Val Glu Phe Lys Cys Arg Cys Tyr Pro Gly Trp Gln Ala Pro Trp Cys Glu Arg Lys 425 Ser Met Trp 435

4/4